

## Claims :

- 1) Method for the isolation of at least one biologically active substance from an industrial dairy by-product or dairy waste flow, comprising :
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- selecting at least one industrial dairy waste or dairy by-product flow containing at least one biologically active substance ;
  - bringing the at least one industrial dairy waste or dairy by-product flow into contact with at least one solid insoluble support material for sufficient time to cause the at least one biologically active substance to selectively adsorb on said support material ;
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  - recovering the insoluble solid support material carrying the adsorbed at least one biologically active substance.
- 2) Method according to claim 1 wherein the at least one industrial dairy waste or dairy by-product flow is substantially liquid.
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- 3) Method according to any one of claim 1 or claim 2, wherein the at least one industrial dairy waste or dairy by-product flow comprises not more than 30% by weight of dry matter.
- 4) Method according to any one of the preceding claims, wherein the at least one industrial dairy waste or dairy by-product flow is generated or supplied from an industrial process that processes or manufactures an organic product.
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- 5) Method according to any one of the preceding claims, wherein the organic product is of animal or plant origin.
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- 6) Method according to any one of the preceding claims, wherein the industrial dairy waste or dairy by-product flow is generated by or supplied from the group of industries consisting of a milk processing plant, butter and butter concentrate manufacture, cream manufacture, ultra fresh dairy product manufacture, casein and caseinate manufacture, and cheese manufacture.
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- 7) Method according to any one of the preceding claims, wherein the at least one industrial dairy waste or dairy by-product flow is

milk or derived from milk.

8) Method according to any one of the preceding claims, wherein the at least one industrial dairy waste or dairy by-product flow is whey.

5 9) Method according to any one of the preceding claims, wherein the at least one solid insoluble support material and the at least one industrial dairy waste or dairy by-product flow are agitated together after being brought into contact one with the other.

10 10) Method according to any one of the preceding claims, wherein the at least one biologically active substance is caused to subsequently selectively desorb from the at least one solid insoluble support material.

15 11) Method according to any one of the preceding claims, wherein the at least one biologically active substance is isolated from the at least one solid insoluble support material.

12) Method according to any one of the preceding claims, wherein the at least one biologically active substance is selected from the group consisting of hormones, proteins, peptides, polypeptides, antibodies, glycoproteins, glycosaminoglycans, and enzymes.

20 13) Method according to any one of the preceding claims, wherein the at least one biologically active substance has a biological activity selected from the group consisting of antibiotic, probiotic, anti-microbial, anti-fungal, cell growth regulation, neurogenerative, oestrogenic, anti-thrombotic, anti-viral, free radical and metal ions scavengers, immuno-modulatory, anti atherogenic, anti-inflammatory.

25 14) Complex obtainable from a process according to any one of claims 1 to 13, wherein the complex comprises at least one solid insoluble support material on which is adsorbed at least one biologically active substance.

30 15) Complex according to claim 14, wherein the complex has a biological activity selected from the group consisting of

antibiotic, probiotic, anti-microbial, anti-fungal, cell growth regulation, neurogenerative, oestrogenic, anti-thrombotic, anti-viral, free radical and metal ions scavengers, immunomodulatory, anti atherogenic, anti-inflammatory.

- 5      16) Animal feedstock composition, wherein the composition comprises a complex according to any one of claims 14 or 15.
- 17) Animal feedstock composition according to claim 16, wherein the complex has antimicrobial activity.
- 10      18) Method according to any one of claims 1 to 13, wherein the at least one biologically active substance is a substance naturally present in the at least one industrial dairy waste or dairy by-product.